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09/359,083

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EXAMINER

LIVERSEDGE, JENNIFER L

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/359,083	Applicant(s) DAVIS ET AL.	
	Examiner JENNIFER LIVERSEDGE	Art Unit 3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 34-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 34-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This Office Action is responsive to Applicant's amendment and request for reconsideration of application 09/359,083 filed on February 24, 2009.

The amendment contains original claims: 3-4 and 6-8.

The amendment contains previously presented claims: 35-40 and 42-43.

The amendment contains amended claims: 1-2, 5, 34 and 41.

The amendment contains new claims: 44-49.

Claims 9-33 have been previously canceled.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-3, 6-8 and 36-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 41 recites the limitation "said OPAL server" in the preamble. There is insufficient antecedent basis for this limitation in the claim, however, for purposes of examination it is understood that it is meant to refer to "said OPAL server computer" as amended in the preceding section. The same logic and rational applies to multiple other claims such as 3, 6-8, 36-40, 42-43.

Art Unit: 3692

Claim 3 refers to "said card database". There is insufficient antecedent basis for this limitation in the claim, however, for purposes of examination it is understood that it is meant to refer to "said virtual smart card database". Similar language is missing in claim 2, where it is referred to as a virtual card database but understood to be a virtual smart card database.

Claim 41 refers to "a hardware security module...increase said monetary balance...encrypt said decreased...". It is believed that the claim is intended to refer to encrypting of the increase.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-8, and 34-49 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,282,522 B1 to Davis et al (further referred to as Davis).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Davis discloses an on-line purchase and load (OPAL) server computer for performing a purchase transaction over a network (column 6, lines 18-26) using a virtual smart card (column 11, lines 1-14), said OPAL server computer comprising:

- a virtual card database having a plurality of records (column 10, lines 60-63), each record including a virtual smart card identifier and a monetary balance corresponding to a single smart card (column 11, lines 20-26 and lines 60-67; column 13, lines 3-6; column 16, lines 6-10 and lines 25-34);

- a hardware security module arranged to decrypt said monetary balance, to decrease said monetary balance, and to encrypt said decreased monetary balance (column 8, lines 22-25; column 10, lines 54-58; column 11, lines 48-67; column 22, line 56 – column 24, line 51);

Art Unit: 3692

a smart card emulator that receives smart card commands from a pseudo card reader module and processes said commands in conjunction with said virtual smart card database and said hardware security module, said smart card emulator arranged to retrieve one of said records from said virtual smart card database, and to deliver said monetary balance to said hardware security module and to store said encrypted decreased monetary balance received from said hardware security module in said retrieved record (column 4, lines 3-5; column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57; column 14, lines 55-58; column 16, lines 22-38);

said pseudo card reader module that receives said smart card commands related to said purchase transaction over said network and relays said commands to said smart card emulator, whereby said OPAL server computer performs said purchase transaction over said network using one of said records in said virtual smart card database (column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57).

Regarding claim 2, Davis discloses an OPAL server wherein the virtual card database further includes purchase algorithm identifiers (column 17, lines 52-56), and wherein the hardware security module includes a plurality of purchase algorithms that are identified for use by one of said purchase algorithm identifiers, said hardware security module is arranged to decrypt said monetary balance using one of said

Art Unit: 3692

purchase algorithms identified by one of said purchase algorithm identifiers (column 22, line 56 – column 24, line 51).

Regarding claim 3, Davis discloses an OPAL server further comprising a user verification module that verifies a user accessing the OPAL server and generates a user identifier, the user identifier being suitable to identify one of the virtual smart card records in the card database (column 11, lines 39-47; column 16, lines 52-64).

Regarding claim 4, Davis discloses an OPAL server wherein the smart card emulator and pseudo card reader module are implemented as a single software module (column 12, lines 1-60; column 24, lines 54-60).

Regarding claim 5, Davis discloses an OPAL server wherein the network is an internet over which the OPAL server communicates with a merchant server and a payment server to transact said purchase transaction (column 1, lines 12-16 and column 6, lines 18-65).

Regarding claim 6, Davis discloses an OPAL server wherein the network is an internet over which the OPAL server (Figure 3; column 5, lines 30-38; column 11, lines 1-15) communicates with a bank server and a load server to load value onto the virtual smart card (Figure 10; column 3, lines 21-26; column 5, lines 32-34; column 8, lines 64-66; column 11, lines 1-6).

Regarding claim 7, Davis discloses an OPAL server wherein the network is an internet over which the OPAL server communicates with a web server and an authentication server to authenticate a user (column 13, lines 32-35 and column 26, lines 18-50).

Regarding claim 8, Davis discloses an OPAL server wherein the OPAL server communicates over the network with a payment gateway for funding account authorization and clearing (column 10, lines 27-65).

Regarding claim 34, Davis discloses an OPAL server wherein the smart card emulator is suitable for returning said record to the virtual smart card database (column 6, lines 40-42; column 7, lines 26-31; column 11, lines 48-67; column 13, lines 3-10; column 14, lines 8-12; column 16, lines 22-38).

Regarding claim 35, Davis discloses an OPAL wherein each record of the virtual smart card database also includes a funding account number wherein the funding account number identifies an account that contains a monetary amount that can be loaded onto a virtual smart card (column 2, lines 24-42).

Regarding claim 36, Davis discloses an OPAL server wherein the OPAL server is further configured to receive a purchase request message from a client terminal,

Art Unit: 3692

wherein the purchase request message indicates a good or service to be purchased by a user, a user identifier, and a user password (column 4, lines 3-5; column 9, lines 3-10; column 13, line 63 – column 14, line 3).

Regarding claim 37, Davis discloses an OPAL server wherein the OPAL server is further configured to send a draw message request to a payment server, wherein the draw request message indicates an amount of money required to purchase the good or service and a merchant identifier (column 16, lines 22-38).

Regarding claim 38, Davis discloses an OPAL server wherein the OPAL server is further configured to receive a debit command from the payment server, wherein the debit command indicates an amount of money to debit from a respective virtual smart card (column 15, lines 22-28 and lines 37-55; column 19, lines 54-60).

Regarding claim 39, Davis discloses an OPAL server wherein the smart card emulator is configured to debit itself in response to the debit command by the amount of money indicated in the debit command (column 21, lines 38-41 and Figure 11A).

Regarding claim 40, Davis discloses an OPAL server wherein the OPAL server is further configured to send a debit response message to the client terminal, wherein the debit response message informs the user either that the amount of money has been debited from the smart card emulator (column 14, lines 56-58) or that money has not

Art Unit: 3692

been debited from the smart card emulator due to a lack of sufficient funds (column 16, lines 10-12; column 17, lines 31-34).

Regarding claim 41, Davis discloses an on-line purchase and load (OPAL) server computer for performing a load transaction over a network (column 6, lines 18-26) using a virtual smart card (column 11, lines 1-14), said OPAL comprising:

a virtual card database having a plurality of records (column 10, lines 60-63), each record including a virtual smart card identifier and a monetary balance corresponding to a single smart card (column 11, lines 20-26 and lines 60-67; column 13, lines 3-6; column 16, lines 6-10 and lines 25-34);

a hardware security module arranged to decrypt said monetary balance, to increase said monetary balance, and to encrypt said increased monetary balance (column 3, lines 19-25; column 8, lines 22-25; column 10, lines 54-58; column 11, lines 4-6 and lines 48-67; column 14, lines 31-32; column 22, line 56 – column 24, line 51);

a smart card emulator that receives smart card commands and processes said commands in conjunction with said virtual smart card database and said hardware security module (column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57); the smart card emulator also configured to send a load request message to a load server, wherein the load request message indicates a virtual smart card identifier and a load amount for a respective virtual smart card, the load amount indicating an amount of money to load onto the respective virtual smart card (column 2, lines 24-42; column 3, lines 21-26; column 5, lines 32-34; column 8, lines 64-

Art Unit: 3692

66, column 11, lines 1-6); said smart card emulator arranged to retrieve one of said records from said virtual smart card database, and to deliver said monetary balance to said hardware security module and to store said encrypted increased monetary balance received from said hardware security module in said retrieved record (column 4, lines 3-5; column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57; column 14, lines 55-58; column 16, lines 22-38); and

a pseudo card reader module that receives said smart card commands related to load transaction over said network and relays said commands to said smart card emulator, whereby said OPAL server performs said load transaction over said network using one of said records in said virtual smart card database (column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57).

Regarding claim 42, Davis discloses an OPAL server wherein the OPAL server is configured to receive a load command from a load server wherein the amount of money indicated in the load request message is loaded onto the respective virtual smart card (Figures 3 and 10; column 2, lines 24-42; column 3, lines 21-26; column 5, lines 30-38; column 8, lines 64-66; column 11, lines 1-15).

Regarding claim 43, Davis discloses an OPAL server wherein the smart card emulator is configured to send a load response message to a client terminal, wherein the load response message informs a user that the amount of money has been loaded

Art Unit: 3692

onto the respective virtual smart card (column 2, lines 24-42; column 5, lines 32-34; column 7, lines 6-14; column 11, lines 1-6; column 28, lines 16-26).

Regarding claims 44-49, Davis discloses a memory arranged to store said virtual smart card database, said smart card emulator, and said pseudo card reader module and wherein the hardware security module is a hardware device in said OPAL server computer and a security box attachable to said server computer (Figure 17; column 13, lines 32-35; column 27, line 10 – column 28, line 26).

Response to Arguments

Applicant's remarks concerning the 101 rejection related to the Bilski test have been considered and the rejection has been withdrawn.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 3692

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Jennifer Liversedge whose telephone number is 571-272-3167. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached at 571-272-6702. The fax number for the organization where the application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jennifer Liversedge/
Examiner, Art Unit 3692

/Kambiz Abdi/
Supervisory Patent Examiner, Art Unit 3692